Introduction to "Cloud and Internet of Things: Challenges and Opportunities" Minitrack

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This Mini-track has been a step-by-step evolution from HICSS-42's "Architectures for Distributed Systems"; "Distributed System's for Ubiquitous Computing" that added the connected everywhere theme; "Cloud Computing"; four mini-tracks on "Secure Cloud Computing"; and finally HICSS-49's "Securing the Cloud and the Internet of Things (IoT)," here noting the placement of "Internet Things" in users' homes as well as in the infrastructures and resources necessary to support our day-to-day lives. In each mini-track security has been one of the underlying themes. Throughout these nine mini-tracks, security has itself has evolved from a background issue to a major threat. While security issues initially menaced the privacy of a user's Cloud storage, now, with the installation of "Internet Things" these issues have become a global menace. While the opportunities presented by this technology are undeniable, equally, and perhaps, more so, are the problems of security. In fact, currently, commonly installed "Internet Things" in peoples' homes have been compromised to build BotNets that deliver massive DDoS attacks.

In this mini-track we represent the very beginnings of the current research on securing IoT as well as the opportunities IoT enables. To this end we have the following four papers:

The first paper, "Privacy of the Internet of Things: A Literature Review," by Noura Aleisa and Karen Renaud of the University of Glascow" reports a systematic literature review of privacy-preserving solutions in research literature and the media.

The second paper, "Contextualisation-as-a-Service (ConTaaS): An Approach to Internet-Scale Contextualization for Developing Efficient Internet of Things Applications," by Ali Yari of RMIT University, et al., proposes a general framework and techniques for near real-time contextualization of high volume IoT data.

The third paper, "Design of Smart Factory Web Services Based on Industrial Internet of Things (IIOT)," by Jieun Jung of Korea Electronics Technology Institute, et al., presents the Smart Factory Web which is based on the IIOT concept of improving factory-to-factory interoperability.

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